



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/589,329	08/14/2006	Alexander Bublewitz	BUBLEWITZ ET AL-14 PCT	6518
25889	7590	05/01/2009	EXAMINER	
COLLARD & ROE, P.C. 1077 NORTHERN BOULEVARD ROSLYN, NY 11576			YOON, TAE H	
			ART UNIT	PAPER NUMBER
			1796	
			MAIL DATE	DELIVERY MODE
			05/01/2009 PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/589,329

Applicant(s)

BUBLEWITZ ET AL.

Examiner

Tae H. Yoon

Art Unit

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/86)
Paper No(s)/Mail Date 8/14/06
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 22 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The recited "Use of" is non-statutory subject matter, and "A method of using" is suggested.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2, 7-11, 13, 14, 16, 17 and 19-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The expression of " ^ " in chemical names for the base component in the instant published document PP [0029] and claim 9 is confusing.

The recited expressions of a range with a range are indefinite in following claims; claim 1 (particularly), claim 7 ((very) preferably), claim 10 ((more or very) preferably, most highly preferred), claim 11 ((more or very) preferably), claims 13 and 14 ((more) preferably, most highly preferably), claim 16 (in particular), claim 17 ((more or very or most) preferably, with special preference, with very great preference,) most highly preferred, at most), claim 19 ((more) preferably, with special preference) and claim 21 ((very) preferably). Also, the recited "polyfunctional alcohols" in claim 20 encompasses

propylene glycols, polypropylene glycols, ethylene glycols, polyethylene glycols and glycerin, and thus it is confusing.

Claim 8 is incomplete since the ending period (.) is missing. Improper Markush language is recited in claim 9 and cancellation of "or" in a second line from bottom is needed.

The recited tradename, Blue Gel, in claim 19 is indefinite and is not permitted in the claim.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thornton*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1, 2, 5, 6-18 and 21 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-20 of copending Application No. 11/480,245. Although the conflicting claims are not

identical, they are not patentably distinct from each other because the instantly recited "comprising" permits presence of other components and because the catalytic salts of said copending Application encompass the instant salts as evidenced by the claim 14 and because the polyether, cations and anions of said copending Application encompass the instant polyether, cations and anions inherently.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2 and 7-21 are rejected under 35 U.S.C. 103(a) as obvious over Yano et al (US 6,077,896) alone, or in view of Schwabe et al (US 6,218,461).

The instant preamble, dental material, has no probative value.

Yano et al teach one-part and two-part curable composition comprising the alkoxysilyl-functional polyether and catalytic salt at col. 2 and cols. 5-6 and in examples. Salts of amine compounds (such as the instant DBU) with carboxylic or other acids are taught in lines 2-3 of col. 6, and said acids would encompass the instant acids. Said polyether can comprise one or more repeating units (col. 2, lines 1-9) and the second repeating unit such as $-\text{CH}_2\text{CH}_2\text{O}-$ bonded to terminal alkoxysilane groups, for example, would meet the instant alkylene spacer ($-\text{CH}_2\text{CH}_2-$) of claim 17 absent further

limitation. The instant paste-formers such as ethylene glycol are taught at col. 4, lines 22-31 and in examples. Yano et al teach employing other additives such as dehydrating agents at col. 6, line 25 which would meet water scavenger of claim 19. Yano et al also teach 2-ethylhexanoic acid in table which is well known carboxylic acid.

Schwabe et al teach carboxylic acids such as octanoic acid for the catalytic metal salts at col. 1, line 64.

Thus, it would have been obvious to one skilled in the art at the time of invention to utilize the instant acid in forming a salt of an amine (such as DBU) as a catalyst in Yano et al without or with teaching of Schwabe et al since said carboxylic or other acids of Yano et al would encompass the instant acids as partially evidenced by 2-ethylhexanoic acid, and since the instant acid such as octanoic acid in forming a catalytic metal salt is well known as taught by Schwabe et al absent showing otherwise.

Claims 1-4 and 7-21 are rejected under 35 U.S.C. 103(a) as obvious over Yano et al (US 6,077,896) alone, or in view of Schwabe et al (US 6,218,461) and further in view of Bublewitz et al (US 2002/0156186 A1).

The instant invention further recites reinforcing and/or non-reinforcing fillers with particular BET surface areas over Yano et al and Schwabe et al. However, Yano et al teach employing various fillers and a combination thereof at col. 6, lines 23-40.

Bublewitz et al teach the instant fillers in PP [0110]-[0111].

Thus, it would have been obvious to one skilled in the art at the time of invention to further utilize the fillers taught by Bublewitz et al in Yano et al without or with teaching

of Schwabe et al since Yano et al teach employing various fillers and a combination thereof and since use of the instant fillers with a reactive silyl group containing polyether is well known as taught by Bublewitz et al absent showing otherwise.

Claims 1, 2 and 7-21 are rejected under 35 U.S.C. 103(a) as obvious over Yano et al (US 6,077,896) alone, or in view of Schwabe et al (US 6,218,461), and further in view of Bachon et al (US 2005/0260401 A1).

The instant invention recites other water scavenger over Yano et al.

Bachon et al teach water scavenger such as vinyltrimethoxysilane in PP [0139].

Thus, it would have been obvious to one skilled in the art at the time of invention to further utilize the vinyltrimethoxysilane as water trapper (scavenger) taught by Bachon et al in Yano et al without or with teaching of Schwabe et al since Yano et al teach employing other additives such as dehydrating agents absent showing otherwise.

Claims 1, 2 and 5-21 are rejected under 35 U.S.C. 103(a) as obvious over Yano et al (US 6,077,896) in view of Schwabe et al (US 6,218,461), and further in view of Renga (US 4,375,549) and Panster et al (US 4,362,885).

The instant claims 5 and 6 further recites ammonium/phosphonium cations with crown ether over Yano et al. However, Renga teaches various catalysts including salts of organic acids and ammonium/phosphonium cations in lines 8-57 at col. 3. Said organic acids would encompass various acids including the instant carboxylic acids since there are limited species of the carboxylic acids such as saturated or unsaturated,

aliphatic, aromatic or cyclo-aliphatic or aromatic and linear or branched. Renga further teaches employing a chelating agent such as a crown ether in order to solubilize the catalysts at col. 4, lines 2-12, and said crown ether would chelate (or complex) said cations of salts inherently. Panster et al teach various crown ethers at bottom of col. 2.

Thus, it would have been obvious to one skilled in the art at the time of invention to further utilize the crown ether taught by Renga and Panster et al with DBU salt of a carboxylic acid in Yano et al without or with teaching of Schwabe et al since Renga teaches employing a chelating agent such as a crown ether in order to solubilize the catalysts since the instant crown ethers are well known as taught by Panster et al and since Yano et al teach employing other additives such as compatibilizers, physical property modifiers and storage stability improving agents absent showing otherwise.

Claims 1, 2, 5, 6, 10-14 and 16-22 are rejected under 35 U.S.C. 103(a) as obvious over Müller et al (US 5,118,290) in view of Renga (US 4,375,549) and Panster et al (US 4,362,885), and further in view of Schwabe et al (US 6,218,461).

Müller et al teach dental impression material comprising an alkoxysilyl-polyether and a catalyst at col. 1, lines 7-14 and col. 4, lines 13-19. Other additives such as fillers, paraffins and glycerol are taught at col. 4, lines 31-38. Calcium sulfate and silicates therein would meet the instant water scavengers since silicates have a layered structure inherently which would absorb water, for example.

The instant invention recites particular catalysts over Müller et al.

However, Renga teaches various catalysts including salts of organic acids and ammonium/phosphonium cations in lines 8-57 at col. 3. Said organic acids would encompass various acids including the instant carboxylic acids since there are limited species of the carboxylic acids such as saturated or unsaturated, aliphatic, aromatic or cyclo-aliphatic or aromatic and linear or branched. Renga further teaches employing a chelating agent such as a crown ether in order to solubilize the catalysts at col. 4, lines 2-12, and said crown ether would chelate (or complex) said cations of salts inherently. Panster et al teach various crown ethers at bottom of col. 2.

Schwabe et al teach carboxylic acids such as octanoic acid for the catalytic metal salts at col. 1, line 64.

Thus, it would have been obvious to one skilled in the art at the time of invention to utilize a salt of a carboxylic acid with the crown ether taught by Renga and Panster et al in Müller et al. since Müller et al teach employing catalyst and since the instant catalyst with a crown ether is well known catalyst and since Renga teaches employing a chelating agent such as a crown ether in order to solubilize the catalysts since the instant crown ethers are well known as taught by Panster et al and since Schwabe et al teach carboxylic acids such as octanoic acid for the catalytic metal salts absent showing otherwise.

Claims 1-6, 10-14 and 16-22 are rejected under 35 U.S.C. 103(a) as obvious over Müller et al (US 5,118,290) in view of Renga (US 4,375,549) and Panster et al (US

4,362,885), and further in view of Schwabe et al (US 6,218,461), and further in view of Bublewitz et al (US 2002/0156186 A1).

The instant invention further recites reinforcing and/or non-reinforcing fillers with particular BET surface areas over Müller et al. However, Müller et al teach employing various fillers and a combination thereof at col. 4, lines 31-38.

Bublewitz et al teach the instant fillers in PP [0110]-[0111].

Thus, it would have been obvious to one skilled in the art at the time of invention to further utilize the fillers taught by Bublewitz et al in Müller et al, Renga, Panster et al and Schwabe et al thereof since Müller et al teach employing various fillers and a combination thereof and since use of the instant fillers with a reactive silyl group containing polyether is well known as taught by Bublewitz et al absent showing otherwise.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tae H. Yoon whose telephone number is (571) 272-1128. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Tae H Yoon/
Primary Examiner
Art Unit 1796

THY/April 30, 2009